

CLAIMS

1. An ink for sublimation transfer ink jet recording comprising:
water;
5 at least one sugar alcohol containing not less than four OH groups;
a sublimation dye;
a dispersant; and
a compound expressed by the following chemical formula (I):
- 10
$$\text{R-O-(CH}_2\text{CH}_2\text{O)}_n\text{-H} \quad (\text{I})$$
- where R is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100.
- 15 2. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sugar alcohol containing not less than four OH groups is at least one selected from the group consisting of D-sorbitol, xylitol, and maltitol.
- 20 3. The ink for sublimation transfer ink jet recording according to claim 1, wherein R is an alkyl group having a carbon number of 30 to 50 and n is from 10 to 50 in the chemical formula (I).
- 25 4. The ink for sublimation transfer ink jet recording according to claim 1, wherein hydrophile-lipophile balance (HLB) of the compound expressed by the chemical formula (I) is not less than 10.
- 30 5. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sublimation dye is at least one selected from the group consisting of a disperse dye and a solvent dye.
- 35 6. The ink for sublimation transfer ink jet recording according to claim 1, wherein the dispersant is at least one selected from the group consisting of an anionic surfactant, a nonionic surfactant, and a high-molecular surfactant.
7. The ink for sublimation transfer ink jet recording according to claim

1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt% with respect to a total weight of ink.

8. The ink for sublimation transfer ink jet recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt%, an amount of the sublimation dye is 0.2 to 12 wt%, an amount of the dispersant is 0.1 to 20 wt%, and an amount of the compound expressed by the chemical formula (I) is 0.1 to 8 wt% with respect to a total weight of ink.

9. The ink for sublimation transfer ink jet recording according to claim 1, wherein the ink does not substantially include a water-soluble organic solvent.

10. A sublimation transfer dyeing method comprising:
printing the ink for sublimation transfer ink jet recording according to any one of claims 1 to 9 on a sheet medium by ink jet printing; and
heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.